REMARKS

Claims 1 to 34 are pending. Claims 1 to 34 are rejected. Claims 33 and 34 are hereby canceled. Claims 1, 9, 10, 13, 22, 30, and 32 are hereby amended.

Objections

Claims 1-34 are objected to because of the following informalities:

> Claim 1, line 4, "the longitudinal orientation" lacks an antecedent basis;
> Claim 1, line 10, "an unmated position" should be changed -the unmated position --;
> Claim 1, line 11, "a mated position" should be changed to -the mated position --;
> Claim 10, line 2, "the transverse range" lacks an antecedent basis;
> Claim 30, lines 3 and 4 and claim 32, lines 3 and 4, "a predetermined lateral position" should be changed -the predetermined lateral position --;
> Appropriate correction is required.

Applicants have made the suggested amendments.

§ 103 Rejections

Claims 1-34 stand rejected under 35 USC § 103(a) as being unpatentable over Loder et al. (6,419,399)

The Office Action states in part:

> Regarding claims 1-2, 13, 19, 22, 27-29 and 31, Loder et al., figures 2-4, disclose a fiber optic connector alignment system comprising:
>
> - a base (102) configured for mounting on a first substrate (106);
> - a housing (150) movably engaged with the base, the housing configured to secure a terminating ferrule (170) for an optical fiber (174), a longitudinal orientation of the optical fiber within the terminating ferrule defining a longitudinal axis, the housing movable along the longitudinal axis between a mated position and an un mated position; and
> - a spring element (184) biasing the housing along the longitudinal axis toward the unmated position; and
> - alignment means;
>
> wherein the housing having a longitudinal range of motion and a lateral range of motion, with respect to the base (column 6, lines 56-67).
>
> Loder et al. disclose the instant claimed invention as described above except for the lateral range of motion when the housing is in the unmated position is less than the lateral range of motion when the housing is in the mated position; and the lateral range of motion varies as the housing is moved through the longitudinal range of motion.
>
> It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Loder et al. to have the lateral range of motion when the

> housing is in the unmated position is less than the lateral range of motion when the housing is in the mated position; and the lateral range of motion varies as the housing is moved through the longitudinal range of motion, since ithas been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233, in order to have a better connection.
>
> . . .
>
> Regarding claims 9-11, figure 4, disclose the housing including a pair of channels (a channel is a slit between 156 and 158) configured to engage a pair of mating rails (each edge of a receiving slot 160) on the base member, wherein the rails areshaped to restrict the lateral/transverse range of motion of the housing as the moves longitudinally toward the unmated position.
>
> . . .
>
> Regarding claims 30 and 32-34, the alignment means comprising a channel on the housing (a slit between 156 and 158) configured to engage a mating protrusion (an edge of a receiving slot 160) on the base member, whereinthe channel and protrusion are cooperatively shaped to direct the housing to a predetermined lateral position as the housing moves toward the forward position.

According to MPEP 2142, to establish a case of prima facie obviousness, three basic criteria must be met: 1) there must be some suggestion or motivation, either in the references or generally known to one skilled in the art, to modify or combine reference teachings, 2) there must be reasonable expectation of success, and 3) prior art references must teach or suggest all the claim limitations. The ability to modify the method of the references is not sufficient. The reference(s) must provide a motivation or reason for making the changes. *Ex parte Chicago Rawhide Manufacturing Co., 226 USPQ 438 (PTO Bd. App. 1984).*

Applicants have amended claims 1, 13, and 22 to include the limitations that the housing is movably engaged with the base or substrate by at least one channel on the housing and at least one rail or protrusion on the base or substrate; the housing has a longitudinal range of motion and a lateral range of motion, with respect to the base or substrate, in both the mated and unmated positions; and the channel and rail or protrusion are engaged in both the mated and unmated positions. Applicants have amended the dependent claims as necessary to be consistent with the amended independent claims.

Applicants respectfully submit that the references cannot support a case of *prima facie* obviousness as to the claims because, among other possible reasons, the cited reference (Loder) does not provide a motivation or suggest for providing a housing with a range of lateral motion because the housing in Loder is secured in the lateral direction. The Examiner cites column 6, lines 56-67 of Loder as disclosing the limitation of the housing having a longitudinal range of motion and a lateral range of motion, with respect to the base (column 6, lines 56-67). However, this portion of Loder actually states that the housing has no range of motion in the lateral and transverse directions as follows:

> "While the board attachment features 156 secures the board housing assembly to the board in the transverse and lateral direction, a range of freedom of movement along the longitudinal axis is allowed." (emphasis added)

In addition, Loder does not disclose all the elements of the present invention because it does not disclose at least one channel on the housing and at least one rail or protrusion on the base or the substrate. Although the Office Action states, in its rejection of claims 30 and 32-34, that Loder discloses alignment means comprising a channel on the housing (a slit between 156 and 158) configured to engage a mating protrusion (an edge of a receiving slot 160) on the base member, Applicants were unable to identify such a slit between board attachment feature 156 and its barbed end 158. Applicants believe the Examiner has misunderstood the teachings of Loder. If Applicants are incorrect in this regard, Applicants request that the Examiner identify the slit between board attachment feature 156 and its barbed end 158 and explain how an edge of a slot can be considered a protrusion.

For these reasons, Applicant(s) submit that the cited references will not support a 103(a) rejection of the claims invention and request that the rejection be withdrawn.

In addition to the foregoing arguments, Applicant(s) submit that a dependent claim should be considered allowable when its parent claim is allowed. *In re McCairn,* 1012 USPQ 411 (CCPA 1954). Accordingly, provided the independent claims are allowed, all claims depending therefrom should also be allowed.

Based on the foregoing, it is submitted that the application is in condition for allowance. Withdrawal of the rejections under 35 U.S.C. 103 is requested. Examination and reconsideration of the claims are requested. Allowance of the claims at an early date is solicited.

The Examiner is invited to contact Applicant(s)' attorney if the Examiner believes any remaining questions or issues could be resolved.

Respectfully submitted,

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Date

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